

# FIELDS

**PEACE RIVER FIELD.**  
Nine wells bored for oil have penetrated important flows of gas. This gas has not been utilized. All wells have been damaged by heavy flows of water coming out with the gas. Depth to gas 980 to 1,400 ft.

**PELICAN FIELD.**  
Discovered in 1897, by Dominion Government borehole. Four wells subsequently drilled by Pelican Oil and Gas Co. Depth to gas 873 to 920 ft. Average open flow 3,000,000 cu. ft. Isolation of field prevents utilization. Field has great importance as reserve supply.

**ATHABASCA FIELD.**  
Unimportant flow from shallow wells. Abandoned.

**VEGREVILLE.**  
Unimportant flow not used at present.

**VIKING FIELD.**

**IRMA FIELD.**

**WETASKIWIN FIELD.**  
Three wells producing less than 1,000,000 cu. ft. per day. Used in gas engines to generate electric power.

**PONOKA.**  
Small flow. Well abandoned.

**CASTOR.**  
Small production from shallow wells. Wells now abandoned.

**MONARCH WELL.**  
Small volume of gas was obtained in exploratory oil well now abandoned.

**DOMES WELL.**  
Small volume of gas from exploratory oil well now abandoned. Depth of well 2,700 ft.

**DINGMAN FIELD.**

**RECORD WELL.**  
Small volume of gas from exploratory oil well. Depth of well 4,310 ft.

**ALDERSYDE WELL.**  
Small volume of gas from shallow well. Deeper drilling to 3,000 feet has been unproductive.

**TWIN BUTTE No. 2 WELL.**  
Small flow obtained while drilling for oil. Well abandoned.

**BASSANO WELL.**  
Small flow. Utilized in gas engines.

**BROOKS WELL.**  
Small flow utilized as public utility.

**ALDERSON WELL.**  
Small flow utilized by C.P.R.

**SUFFIELD WELL.**  
Small flow utilized by C.P.R.

**MEDICINE HAT FIELD.**

**BOW ISLAND FIELD.**

**UNITED WELL.**  
Large volume at 2,000 ft. "Drowned Out" by water.

**BEAVER WELL.**  
Large volume reported. Well abandoned because of water.

**MANY ISLAND LAKES WELL.**  
S.E. 1/4 Sec. 19 Tp. 14 Rge. 1 W. 4. A well recently drilled 35 miles North East of Medicine Hat obtained a flow of some 700,000 cubic feet per day at a depth of 1,550 feet.

**MUNICIPALITIES UTILIZING NATURAL GAS**  
Medicine Hat  
Redcliff  
Dunmore  
Brooks  
Bassano  
Bow Island  
Lethbridge  
Wetaskiwin  
Grannum  
McLeod  
Clareholm  
Nanton  
Okotoks  
Calgary  
Wetaskiwin

**INDUSTRIES UTILIZING NATURAL GAS**  
Electric Plants  
Water Works  
Rolling Mill  
Brick Kilns  
Pottery Works  
Railway Shops  
Glass Factory  
Nurseries  
Machinery Man'y.  
Pump and Brass Works  
Refineries  
Flour Mills.

**HEAT VALUE ALBERTA GAS**  
Bow Island gas: 806 to 1093 B.T.U's. per cu. ft.  
Medicine Hat gas: 780 " " " "  
Dingman Field gas: 1015 to 1104 " " " "

## PRESENT CLOSED PRESSURES

Peace River Field: 180 lbs. " " " " 1921  
Pelican Field: 230 " " " " (1920)  
Viking Field: 710 " " " " (1920)  
Irma Field: 700 " " " " (1920)  
Wetaskiwin: 135 " " " " (1920)  
Dingman Field: 62 to 150 " " " " (Ave. 1920)  
Medicine Hat Field: 445 " " " " (Ave. 1920)  
Bow Island Field: 250 " " " " (Ave. 1920)

Department of the Interior  
Canada.

HON. CHARLES STEWART, MINISTER  
W.W. CORY C.M.G. DEPUTY MINISTER

## MAP OF ALBERTA SHOWING NATURAL GAS RESOURCES

Compiled by S.E. Slipp, Petroleum Engineer,  
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Scale 35 miles to 1 inch

**LEGEND**  
Natural Gas field  
Areas of possible large production  
Deep Drill-holes proving only small production  
Small production of Natural Gas  
Location of Deep Drill-holes proving no Gas  
Pipe lines

The figures in red 20 correspond to numbers appearing in column headed "FIELDS"

## NOTES ON MEDICINE HAT—

### REDCLIFF FIELD

The Medicine Hat Field has an actually proven area of some 40 or 50 square miles.

Natural Gas is supplied for various purposes to the city of Medicine Hat, to Redcliff and to many industrial plants.

There are two gas horizons: the "shallow" gas at 700-800 feet and the "deep" gas at 1,000 to 1,200 feet. The shallow gas was the first developed.

The shallow gas had an initial pressure of about 270 pounds and the wells yielded from 50,000 to 100,000 cubic feet per 24 hours. The wells to this horizon were all "wet" and gave considerable trouble; they are not used at the present time.

The gas in the deep sand had an initial pressure of 350 pounds and volumes up to 4,500,000 cubic feet per day open flow were reported in the early history of the field. The first deep wells were drilled in 1900 and the latest drilling was in 1917. The greatest drilling activity was in 1913. At present the closed pressure of the wells averages about 445 pounds and the open flow appears to be about 2,000,000 cubic feet per day on an average.

Shallow wells drilled..... 7  
" " abandoned..... 7  
Deep wells drilled..... 32  
" " abandoned..... 1  
" " gassers..... 31

In 1919 the consumption of gas by Medicine Hat City and industries obtaining gas from the city amounted to 2,559,658,000 cubic feet. Privately owned wells and the two at Redcliff would probably account for 2,000,000,000 cubic feet additional, so that it is estimated the annual production of the Medicine Hat field is in excess of 4,000,000,000 cubic feet.

## NOTES ON THE BOW ISLAND FIELD.

The Bow Island Gas field covers an area of about 20 square miles in Townships 10 and 11, Ranges 11 and 12 West of the 4th Meridian. This field borders the South Saskatchewan river, north of Burdett station on the Medicine Hat-Lethbridge line of the C. P. R.

The field was opened in 1908 by the C. P. R. but subsequent extensive development was executed by the Canadian Natural Gas, Light, Heat and Power Company for the purpose of supplying natural gas to Calgary and other communities.

The original rock pressures averaged 750 pounds to the square inch and wells of over 20,000,000 feet open flow capacity were brought in. At present (September, 1920) the average rock pressure is less than 250 pounds. Several of the wells are being flooded with encroaching water and practically all recent drilling has developed "dry holes."

The gas sand occurs at about 400 feet above sea level and drilling depths varying from 1,900 to 2,500 feet.

Number of wells drilled..... 25  
" " in dry..... 4  
" " Gas wells abandoned..... 4

**FUTURE DEVELOPMENT.** Recent drilling results indicate that the field has practically reached the limit of usefulness in supplying gas to the Calgary gas line. There is probably less than one-quarter of the original volume of gas remaining in the field. The decline of Bow Island gas field has led to drilling activity in other prospective gas fields in southern Alberta, but so far with very disappointing results.

## NOTES ON THE DINGMAN FIELD.

The Dingman Gas Field has an area of about one square mile, and has three producing wells. The development of the field was incidental to oil exploration. It is the first of the Foothills belt to be productive of gas.

There are several gas horizons between one thousand and three thousand nine hundred feet (1,000 to 3,900 feet). The volume of gas obtained is about four million cubic feet (open flow measurements), and the pressures are in the neighborhood of 150 lbs. The gas is a "wet" gas, and is utilized for the extraction of gasoline.

The Residual gas is piped to Calgary and utilized for domestic purposes. Gasoline extracted from the gas is produced at the rate of about 1200 gallons of gasoline per day.

## NOTES ON THE VIKING FIELD.

An extensive gas field has been developed over a large area lying between Viking on the Grand Trunk Pacific and Birch Lake. The gas occurs in two sands at a depth between 2,100 and 2,300 feet in the wells drilled. Pressures up to 800 pounds are reported, and an average open flow capacity of 4,000,000 cubic feet per well is recorded.

Number of wells drilled..... 9  
" " drilling..... 1  
" " abandoned..... 1  
" " obtaining gas..... 9

At present all the wells are closed in. The field was developed for the purpose of supplying Edmonton with gas.

## NOTES ON THE IRMA FIELD.

This field is located on Battle river, midway between Irma and Wainwright on the main line of the Grand Trunk. The depth to the gas sand is 1,900 feet from the river bed. Two wells have penetrated to the gas sand and have an open flow capacity of 5,000,000 cubic feet for 24 hours, and a closed pressure of 700 pounds.

Number of wells drilled..... 3  
" " abandoned incomplete..... 2  
" " gassers..... 1

Drilling conditions appear to be ideal though some rather troublesome caving formations were encountered in the upper beds drilled. This location seems to have a promising future as a productive gas area.

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